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Report No.14
From Lewis W. Haskell
Algiers, Algeria,

Voluntary
Consul.
March 4, 1926.

THE CULTIVATION OF COTTON IN ALGERIA.

The Oran Plantations

The following is the substance of a report submitted by MrBRIERE, Secretary of Oran Chamber of Agriculture, on the cotton situation,and its outlook in Algeria.

This report has just appeared and it is believed that its transmission to the Department will serve the useful purpose of giving the general French point of view on the question of cotton production. The aspirations of the French as to the further development of cotton growing in North Africa is also clearly outlined.

A "study trip"

Note: When reference is made to "this year" 1925 is meant.

A "study trip" to enable French manufacturers to visit the colony's cotton plantations was organised last month by the Algerian Chambers of Commerce, with the consent of the Governor General.

Industrials from Lille, Alsace and Paris visited the plantations of Misserghin, Aïn-Temouchent, St.Denis-du-Sig, Perrégaux, Relizane and Orleansville.

The trip left no room for doubt as to Algeria's ability to produce cotton, and good cotton, over wide expanses of territory and obviously the colony might enable France considerably to reduce her imports from foreign countries.

Attention, however, should be given to the selection of seed. At present there is a great mixture of varieties differing as to length of fiber, whiteness and quality. The first requisite of the cotton spinner is regularity of quality: the point is important since the machines are regulated for a given length and variations occasion waste.

So far, Algerian cotton growers have had a free hand in obtaining their seed wherever they wished in the Colony, but it seems necessary now to standardize the selection. Certain growers have also fraudulently obtained seed from abroad at the risk of introducing parasites such as the pink worm, and so of compromising the future of the industry. Such abuses should be punished and the Government will be asked to take the necessary steps. But it is also undesirable for every grower to indulge in his own particular variety. Tests should be made by specialists, such as Dr.Trabut and Mr. Ducellier,or by research institutions, such as the Agricultural Institute at Maison Carrée, and the experimental stations at the Ferme Blanche and Orleansville. These men and institutions are equipped and directed for long research work and by joining hands with them , Algeria might furnish cotton which could compete, in particular, with Egyptian cotton.

Comparisons made have shown that Algerian cotton bears a close resemblance to that produced in lower Egypt. This is not surprising as cotton cultivated in the Colony is of Egyptian origin, more or less modified by climate and hybridization. But the comparison is gratifying to Algeria as, with the exception of "Sea Island" cotton from Georgia, whose world production does not exceed 8000 bales, the medium silk cotton from lower Egypt and especially the Sakellaridis obtains the highest quotations.

It is believed that Algeria could, in part, relieve France from the necessity of importing from Egypt.

Between October 1, 1924, and August 1, 1925, 126,464 bales (of 335 kilograms each) of Egyptian cotton were imported into France; one quarter being Sakel and three-quarters Ashmonni cotton. That represents 400,000 quintals representing, at last year's rate of exchange, the expenditure outside the country of 700 to 800 million paper francs. Obviously it is the nation's interest if this figure can be diminished.

1. The Quality of Algerian Cotton.

The value set on to Algerian cotton, in spite of the present irregularity of its quality, proves that the Colony can some day - altogether or partially - replace Egypt in the supply of medium silk cottons.

Certain French industrials consider that Algeria should not only grow the highest grade cotton, but also grow the short silk cotton of the American type which forms the largest of France's cotton import. Of the 300,000 tons purchased abroad by France eight-tenths are short silk and only five-tenths medium silk. The market for Algerian short silk would be unlimited, whereas if the country confines itself to the highest grade there will be a glut on the market and a corresponding drop in prices which will render cultivation less remunerative and possibly difficult.

Colonists may argue that it is not their interest to grow American cotton which would bring Frs: 13 the kilogram when Egyptian cotton sells for Frs:20; that what is best for Algeria, as for America, is "that which brings most dollars to the acre" or, translated into French "that which brings most francs to the hectare" and that when it is seen that a change would be advantageous, a change will be made.

The argument is not unsound but, at the same time, it is known that Egypt, altough it has the monopoly in Sakellaridis cotton, is contemplating the substitution of other qualities, which though less fine as to fiber, produce more to the acre and are therefore more remunerative.

The following is an extract from a report (dated November 12, 1925) of the "Upper and Lower Egypt Cotton Trading Company."

"Growers complain of the prices obtained for "Sakellaridis which, at the present level, they consider "will cease to be remunerative."

"In the interior, the price paid, in round figures, "is six Egyptian pounds for Ashmouni and eight Egyptian "pounds for Sakellaridis per cantar (44 Kilograms :493) "and unginned."

"As the Sakellaridis variety yields 3 cantars per "feddan (4.200 square meters) and the Ashmouni 5, it "follows that a feddan of Sakellaridis is worth 24 pounds " and a feddan of Ashmouni 30 pounds. The Sakellaridis "should be replaced by a good silk cotton whose superior "yield per feddan would permit of its being sold at a "lower price than the Sakellaridis and yet leave a sufficient profit for the grower".

"It seems that the nes variety "Fonadi" answers all "these requisites. Apparently its yield is 5 or 6 cantars "to the feddan, that the staple is good and regular although

"not as long

"not as long as the Sakel; it should therefore suit "most spinners of the fine quality cottons, with the "exception perhaps of those who need an extra long "fiber such as the Sakel".

The above extract sums up the question from the aspect of both grower and spinner and emphasizes the fact that while the trade needs good quality cotton it does not wish to pay a high price, and that the grower wishes only to produce what is most profitable to him, moreover, certainly the finest quality is not always the best paying to the grower.

At the moment Algerians are not required to change, but to improve their varieties.

In the district of Orleansville, the nut Afifi is still cultivated and has adapted itself to the climate. The Department of Oran cultivates, principally, American varieties which have been more recently introduced :the Yuma and Pima which are practically on a level as to fiber, and of which the Pima seems slightly more productive. At Saint-Denis-Du-Sig, in some of the plantations, some of the Nubari variety is cultivated. This is a variety which was cultivated some time ago at the "Ferme de l'Union" but unfortunately is is rarely as a pure variety, which according to some is much to be regretted.

Last year Sakellaridis was sold for over Frs:30 the Kilogram in Egypt. In Algeria certain cultivators obtained Frs:26 for thin cotton and the average price may be taken as Frs: 21.45 which was that obtained by the Perrégaux Cooperative. But last year was exceptionally for Algeria on account of the world shortage of cotton and particularly of the Egyptian cotton harvest. At Saint Denis-du-Sig the plantations yielded 22 and 23 metric quintals per hectare which sold for Frs: 26 the Kilogram. These figures cannot be taken as average, but the following figures of the Perrégaux District, which have been supplied by the courtesy of the Cooperative, may be taken as a basis:

Results of the 1924-1925 Season:

Area planted:	370 hectares.	
Production of raw cotton:	521.082	Kilograms
Cotton Fiber:	164.518	"
Cotton "Scarto":	3.902	"
Unginned Cotton:	348.587	"

These figures show an average per hectare of:

In raw Cotton	1.483 Kilograms	
In Cotton Fiber	444 " sold at Frs:21.45 the Kilogram..	Frs: 9.523.80
In Cotton "Scarto"	10 Kilograms 600 sold at Frs:5 the Kilogram.....	Frs: 53.
Unginned Cotton	942 Kilograms sold at Frs:0.74 the Kilogram...	Frs: 697.10
	Gross profit per hectare:	10.273.90

The figure is always a variable one, but if deduction were made of Frs.4.000 to Frs.4.500 per hectare to cover cost of cultivation,picking and ginning, Perrégaux would have a net profit of approximatively Frs:6.000.

Even if cotton prices were considerably lower, a considerable profit might still be made provided the harvest were good. In Egypt the average production per hectare is one bale (335 Kilograms),corresponding approximately to 1.000 Kilograms of raw cotton. This figure should be reached in Algeria where the ground is irrigated and well cultivated. At Perrégaux the return is much superior.

It is to be observed, on the other hand, that there is a considerable difference between the raw cotton grown and the fiber produced. The above table showed a product in fiber of 31.5%.

Is it possible to develop the cultivation of cotton?

It is estimated that approximately 4.500 hectares have been planted this year in Algeria, two-thirds of which are in the Department of Oran.

The execution of the hydraulic works would enable a considerable increase to be made in the cultivation in irrigated land.

a) Cultivation in Irrigated Territory.

Once the dams are erected, the territory which could be devoted to the cultivation of cotton in Algeria is estimated at 100 of 125.000. Even so,with 300 to 350 Kilograms of cotton fiber to the hectare, Algeria would be producing barely a tenth part of the consumption in France.

Results already obtained have developed enthusiasm among colonists. Two growers may be cited: one, in Relizane developed a fine field of 75 hectares in the borders of the River Mina, beside salty and almost worthless soil. The surface was watered by a pumping installation, the water being drawn from the River Mina. The second man, at La Tafna cultivated 40 hectares in the same way.

On all sides ground is being sought for cotton cultivation. The captation of water is effected, whilst awaiting the execution of the hydraulic works which will ten times increase the irrigable territories in Algeria. The capital expended on such works will always be worth while, even though cotton growing ceased to be remunerative, as there are other branches of agriculture for which the shores of the Mediterranean are eminently suitable, for instance, fruit growing.

Meanwhile attention might be called to the old dams whose original capacity has been considerably diminished due to the fact that they have been choked up with mud. The barrage of Tlélat, for example, whose original capacity was 730.000 cubic meters, is now practically useless.

b) Cultivation

b)Cultivation on non-irrigated Territory.

In addition to the irrigable territory suitable for the cultivation of cotton, such, for instance, as the two plains stretching from the Sebka to Inkermann, prolonged in the direction of Algiers by the Chéliff Plain, there is certain rare territory which has special soil and climate and in which it is possible to cultivate cotton without irrigation. It is essential, however, that the soil be light and capable of retaining a minimum of moisture even in the height of the summer. At Témouchent cotton has been grown in such soil but it must be admitted that the soil is first-class and, moreover, that the field had undergone deep plowing for the planting of wines and if cotton could be grown anywhere in non-irrigated land it could be grown there.

At rio-Salado, a proprietor produced a sample of cotton harvested on salty soil "where nothing would grow" as he remarked. There is the possibility, therefore, that soil which has hitherto been considered worthless might be utilized for cotton.

According to an Algerian Expert, cotton is one of the most accomodating plants both as to quality of soil and as to water. Given a deep enough soil, sufficiently provided with the necessary fertilising elements ,cotton will grow where vegetables best able to withstand salt will hardly exist: such as luzern and artichokes.

Dr. Trabut states that it has been possible to obtain cotton from soil containing as much as 4 grams of chlorure per kilometer and even where the irrigation water has a proportion of 2 grams of salt to the liter.

If these facts are confirmed by experience, there are ample possibilities in Algeria.

Mode of Cultivation:

Every precaution should be taken to assure uniform germination of the cotton plants, since even slight backwardness in some plants results in irregularity of the crop. The seeds should be sorted, those that are too light should be eliminated and those destined for the plantations should be soaked. Sowing may be done thickly and in pockets, particularly in heavy ground; plants should later be thinned and only the two in the best position allowed to remain. The season for planting varies in the different localities, but should be directly the frosts are over and when the daytime temperature is at least 10° centigrade. Most of the planting in the Oran Department was done too late this year.

During vegetation the plantations should be weeded and, if possible, harrowed after each watering.

Irrigation is of capital importance, but it is impossible to make definite rules. Thus, at Misserghin, the plantations are irrigated every twelve days, and at

Saint Denis-du-Sig and Perrégaux only every twenty-one days. At the former place, the soil is lighter and the water therefore filters deeper. It might be said that the capacity of soil for retaining water is in inverse ratio to its **fertility**. A silicious, clayey soil would require less than slightly sandy soil and would retain the water round the roots for a longer period. Irrigation should be as infrequent as possible, compatible with keeping the plants healthy. At Relizane, to facilitate watering, the plants are cultivated in two parallel lines separated from each other by about twelve inches, down which runs the trench, each plant being watered on one side only. From one double line to the next there is a large space of about 2 3/4 inches which is continually turned over as in the case of vines planted wide apart. In the above manner, certain growers at Relizane have obtained good results with only three waterings during the season instead of seven or eight as in other places.

It is possible that these plantations give a slightly smaller return to the hectar than others more closely planted. But a considerable economy in water has been effected and the ground is ready for any kind of cultivation in the following year; on the other hand, after intensive irrigation the soil is frequently left in bad condition.

Picking and Ginning:

Cotton picking might be done more carefully than is the case: few workers use the double pockets, the one for clean cotton and the other for the imperfect. Also some cotton arrives at the ginning factories slightly damp which would be easily avoidable by not picking when the dew was on the plants, or during fogs, and by drying the cotton on screens or panes before storing.

Both the private and cooperative ginning factories which we have visited have been usually well, if not luxuriously, equipped. In the Department of Oran, there are four private-owned ginning factories at Relizane, and one Cooperative at Perrégaux. There will shortly be two new cooperatives, one at Mostaganem and the other in Oran. The creation of cooperatives is obviously to the advantage of agriculturists.

Cooperatives:

These advantages an American delegate, Mr. Pearse, estimated as follows at a recent International Cotton Committee:

"Members of cooperatives are alive to the necessity of coming into direct contact with the weaver. They know that eonomies effected by the suppression of "country damage", by the reduction in the warehousing costs, in insurance, et cetera, only serve to increase the profit of the tradesmen who frequently remove the cooperatives label and replace it by one attributing to the cotton a higher value than that at which they bought it and which it is worth.

Through cooperatives it is also possible to store stocks of same quality, gathered in the one district and sometimes even in the one field. The industrialist, therefore, who deals directly with the grower is assured of uniformity of quality which the middleman is unable to obtain for him.

Encouragement is also given to farmers to grow cotton where cooperatives can assure even the smallest grower with a market.

Commercial Organization:

What is at present lacking, and to be created in Algeria, is commercial organization. The lots of cotton are not sufficiently standardized because no definite type is grown. Later on it should be possible for buyers to come to docks and warehouses, for preference at the port of embarcation, where the cotton from the interior has been deposited after it has been ginned and where sorting has been carried out according to length of fiber, fineness, resistance and cleanliness. For the classification experts will be needed who though, at the beginning must come from France, may perhaps later be succeeded by Algerians trained in England.

Buyers who have reason to doubt uniformity in quality are likely to make low offers in order to cover themselves.

Definite steps have been taken in Egypt to prevent deterioation in the quality of cotton.

We consider it would be a wise move to draw up a resolution requesting the Government to send a small mission to Egypt to study conditions and methods.

General:

The classification of cotton and the selection of seeds should be our first care in the future. As regards the former, selection and distribution should be undertaken by a special institution.

In 1926 or 1927, it is proposed to hold a cotton congress in Algeria which will afford an opportunity for reports which should constitute a complete documentation.

The following table gives the cotton production in the Colony between 1904 and 1925:

In 1904............................	3	quintals.
In 1908............................	354	"
In 1913............................	1,428	"
In 1919............................	483	"
In 1922............................	2,260	"
In 1925 (first 10 months).........	5,888	"

Algeria can look forward to the day when with 100,000 hectares of cotton she can provide France with 300,000 quintals and thus decrease by one-tenth the amount now paid to foreign countries.

The conslusions

The conclusion adopted a few days at the General Syndicate of Egyptian Agriculturists might also be adopted by Algeria.

"We should not exploit the need for cotton by "demanding exhorbitant prices. On the contrary, "our object should be to produce largely and sell "cheaply so as to put our goods within the reach "of the greatest number of consumers."

"We can produce largely by improving our "methods of cultivation,and we can sell cheaply "by reducing the cost of production."

"Consumers and producers should strive to "establish a balance which will provide "satisfaction to both parties."

Lewis W Haskell

Lewis W. Haskell,
American Consul.

In quintuplicate:
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THE CULTIVATION OF COTTON IN ALGERIA

Report No.83 | Voluntary.
From Lewis W. Haskell | Consul General.
Algiers, Algeria. | December 2, 1926.
Date of Mailing: | December 4, 1926.

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DEC 30 1926
ASSISTANT SECRETARY OF STATE

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This report is an addendum to the report submitted by this office on the same subject on March 4, 1926 (Report No.14) and is intended to bring out clearly the fact that the lint cotton produced in Algeria is very similar to that grown in Egypt, and that the growing of this particular type is being encouraged by the local government.

Inasmuch as the Egyptian cotton, with "Sea

Island Cotton" seems to be in a class by itself, this point may have an important bearing in the consideration of the world's cotton production. In other words, any forecast of the place Algeria will take in the world cotton production should take into account that the colony's contribution will be long stapled cotton. Algeria, under the most favorable development of her cotton growing, may not, therefore, be considered as in the competitive market so far as concerns the short stapled cotton.

In order to get authoritative information, this office obtained confirmation from Dr. Trabut, the well-known agricultural expert in Algeria. Dr Trabut says specifically:

> "Of Egyptian cotton cultivated in "Algeria, the Pima gives the best results, "and we try to grow this variety only.
>
> "Prices obtained for the lint cotton "are the same as for the Egyptian Sakel "variety. In 1925, the price averaged "20 francs the kilogram. As yet sales "have not been made this year. If the "depreciation of the English pound sterling "continues, prices will probably be two "to three francs less than those obtained "in 1925. These prices are very remunerative and production may be as much

"as five hundred kilograms of lint cotton "to the hectare. The fiber is 1.1/3" to 1.1/2" in length of long silk - Sea Island "Type."

Lewis W Haskell

Lewis W. Haskell,

American Consul in Charge.

In quintuplicate.

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TECHNOLOGICAL STUDY OF ALGERIAN COTTON.

Report No.29.	Voluntary Report.
Algiers, Algeria.	April 15, 1927.
Date of Mailing:	April 22, 1927.

MAY 7 1927

From: George Tait

George Tait,
American Vice Consul in Charge.

It is considered that the following extract of a technological study of Algerian cotton may be of interest as a sequel to reports Nos.14 and 83 dated March 4, 1926 and December 2, 1926, respectively.

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The analysis has been published in the periodical "Coton et Culture Cotonnière" which is the organ of the cotton section of the Committee of

Encouragement of Colonial Scientific Research Work. The samples were submitted by the Algerian Government General and were the following:

1. Orléansville Mit-Afifi.
2. Yuma.
3. Yuma No.1.
4. Pima

All the above were sent from the government experimental station at the Ferme Blanche in the Department of Oran.

5. Perennial Cotton K.H. vg. from the botannical gardens.

The five samples were of the Gossypium Barbadense variety.

1. Orléansville Mit-Afifi.

Yield: In lint cotton(1) 31%.

Weight (100 grains): 14 gr.27.

Lint index(2): 6 gr.41.

Dead Fiber: 8.5%

Fiber: Length 37 mm.(33 to 41 mm.).

Quality: 19μ5 (17 to 22μ).

Twist(3) 5 turns; 46% of the fiber being well and thoroughly twisted.

---

(1) Fiber.
(2) Weight of fiber per 100 grains.
(3) By the twist, the degree of maturity can be verified, fibers that are insufficiently ripe being slightly or irregularly twisted.

Average tenacity: 8 gr.30.

Tenacity of a bundle of 0 mm.1 in diameter (26.3 fibers): 218 gr.29.

Extensibility: 50% of the fiberscan be extended to at least 10% of their original length, and 50% to a greater length.

Classification: Butter colored, lustrous and silky, fiber clean and unadulterated. Faults and impurities: occasional débris of leaves and seed. Commercial classification, good.

Industrial Utilization: Spun, Nos.100-110, Jumel scale, fine and solid materials.

2. Yuma.

Yield: In lint cotton: 33.4%.

Weight (100 grains): 12 gr.76.

Lint Index: 6 gr.25.

Dead Fibers: 14.8%.

Fiber: Length 38 mm.5 (35 to 42 mm).

Quality: 19 μ (17-21μ).

Twist: 5 turns; 52% of the fiber well and thoroughly twisted.

Average tenacity: 8 gr.10.

Tenacity of a bundle of 0 mm.1 (27.7 fibers) 224 gr.37.

Extensibility: 62.5% of the fibers can be extended to over 10% of their initial length.

Classification: Color, light, slightly pink;clean; neither lustrous nor silky. Defects and Impurities: remains of seeds and buds of fibers. Commercial classification: good fair.

Industrial Utilization: Spun 110-120,

Mit-Afifi

Mit-Afifi scale, fine and strong materials.

3. Yuma No.1.

Yield: In lint cotton: 35%.

Weight (100 grains): 15 gr.

Lint index: 8 gr.

Dead Fiber: 15.7%.

Fiber: Length 39 mm.5 (36 to 43 mm).

Quality: 19μ (17 to 21μ).

Twist: 5 turns; 35% of the fiber is well and thoroughly twisted.

Average tenacity: 8 gr.66.

Tenacity of a bundle of 0 mm.1 (27.7 fibers) 239 gr.88.

Extensibility: 58.4% of the fibers can be extended for over 10% of their original length.

Classification: Butter colored, slightly pink; lustrous and silky; clean cotton, unadulterated fiber. Faults and impurities: a few fiber buds and seed fragments. Commercial classification: fully good fair.

Industrial Utilization: Spun 130-140, Sakellaridis scale, fine or strong materials.

3. Pima.

Yield: Lint cotton: 33.6%.

Weight: (100 grains): 12 gr.63.

Lint Index: 6 gr.39.

Dead Fiber: 13%.

Fiber: Length 38 mm. (35 to 41 mm).

Quality: 19 µ 5 (17 to 22 µ).

Twist: 4 turns 5; 51% of the fibers are well and thoroughly twisted.

Average tenacity: 6 gr.57.

Tenacity of a bundle of 0 mm.1 (26.3 fibers): 172 gr.79.

Extensibility: 58.3% of the fibers can be extended over 10%.

Classification: Color, pale pink; moderately lustrous, very slightly silky; clean. Faults and Impurities: some remains of seeds and fiber buds. Commercial classification: fully good fair.

Industrial Utilization: Spun 100-110, Egyptian cotton scale, but less resistant.

The conclusions arrived at by the research workers: M. le Pr. Heim de Balsac and MM. O. Roehrich and Ch. Pontillon, as regards the four Algerian cottons of Egyptian Mit-Afifi origin are the following:

Yuma No.1 ranks first in yield both by its percentage in lint cotton and its high lint index.

The Mit-Afifi of Orléansville is an excellent cotton, of good quality, homogeneous and without dead fibers. Its elasticity is weak, which is its only defect.

Yuma and Yuma No.1, except in their characteristics as to precocity and yield, are much alike. Yuma No.1 is, however, the better of the two, it is also longer, which would give it the preference. It is productive, and comparable to the best

Egyptian cottons.

The Pima appears to have lost the qualities for which it had been chosen in America: length, strength and yield. It is homogeneous and elastic, but not strong and of only mediocre length. In its present condition it should be eliminated.

To sum up: with the Orléansville and the Yuma cottons, Algeria possesses as good cottons as the best Egyptian varieties.

As to the Perennial Cotton K.H. vg., this is the product of a hybrid variety of Caravonica by Mit-Afifi. The first generation yielded a few plants which were extra fertile (as many as 300 ripe capsules on one plant on the same day); the return in lint cotton was 40%; the fibers attain to 35 mm. and are finer than the Caravonica. The second generation plants are less fertile; in the second year they are capable of producing 500 grams of cotton and the return per plant attains to as much as two pounds. Sowing is effected at the rate of 3,000 to 5,000 feet to the hectare (2.471 acres); a plantation may last for four or five years. The characteristics of the sample sent to the laboratories by Dr. Trabut are:

Yield: In lint cotton: 39.09%.

Weight (100 grains) 10 gr.47.

Lint index: 6 gr.72.

Premature buds: 5.73%.

Dead Fibers: 10%.

Fiber: Length: 35 mm. (30 to 40 mm.).

Quality: 18μ5 (16 to 21μ).

Twist: 5 turns 5; 63% of the fibers are well and thoroughly twisted.

Average Tenacity: 7 gr.04.

Tenacity of a bundle of 0 mm.1 (29.27 fibers): 205 gr.97.

Average extensibility: 6.34%; 100 fibers can be extended over 10%.

Classification: Color, white, slightly creamy; soft, lustrous and woolly; very clean. Faults and impurities: remains of seeds clinging to the lint. Commercial classification: fully good fair.

Industrial Utilization: Comparable to Mit-Afifi, might replace it and could be mixed with wool. Spun, 100 threads.

This cotton is longer and finer than the Mit-Afifi, and is less elastic. Only in length does it approach the South American varieties.

In quintuplicate.

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NOTE

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REGARDING:

Cotton Growers Day to be held at Algiers.

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WATER CONGRESS AND COTTON GROWERS DAY TO BE HELD AT ALGIERS

OCTOBER, 1927.

Report No.53,	Voluntary.
Algiers, Algeria,	July 25, 1927.
Date of Mailing,	July 30, 1927.

From:

Lewis W. Haskell,
Consul General in Charge.

* * *

Under the auspices of the General Confederation of Algerian Agriculturists, a congress will be held at the Palais Consulaire, Algiers, from October 27, to October 31, 1927, to discuss the important questions of water supply and cotton growing in North Africa.

The intended congress has the warm approval and the official patronage of the Governor General for Algeria, the Resident General for Tunisia and the Resident General for Morocco.

The scientists and engineers of the various government services, in the three countries, are to have the opportunity of stating in public the results of their studies and experience together with their personal views on the subjects contained in the program.

In fact, the Congress appears to be in reality a meeting of the public services of the three French divisions of North Africa, and is probably destined to be the prelude to a more intensive campaign in favor of new expenditure on public irrigation works.

A second class of officials will be present at the Congress in the persons of the delegates of the numerous agricultural organizations. In addition to any constructive ideas which they may propound, it is probable that they will act, in a considerable measure, as an opposition, and will set forth either on practical grounds or under the influence of local interests their objections to the schemes adumbrated by their more scientific colleagues.

There will be also a number of independent congressists whose audible share in the discussion will be probably somewhat limited, but whose presence will be of value indirectly.

Whatever the results of the Congress, its proceedings are sure to be of educational value. Consequently it is felt that it is certain to arouse some interest in America which has hitherto found in Algeria a large and fertile field for scientific experiments with such profit and result that an American book on dry farming in its translated edition is the standard work on this subject for Algeria.

The Congress will not be limited to discussion only. It is to have its practical side. On the old military training ground, in the heart of the industrial quarter, there will be held at the same time an exhibition of all kinds of appliances dealing with the various problems of hydraulics.

Since in Algeria every attempt to procure or to alter a water supply is subject by law to the direct control of the Government, the present occasion would seem to offer to American firms, and more especially to those with European connections, a ready means of making themselves known to the competent authorities who will be necessarily centralized at this congress.

According to the present intentions no charge for space will be made to intending exhibitors, but any exhibiting firm will presumably apply for a member's ticket of admission to the Congress, the price of which is fifty francs, to be had from Mr. Baubier, 1, Boulevard de la République, Algiers.

Enclosure: Program.

860.7
LWH:YM

A true copy of
the signed original.

ARRANGEMENTS RELATIVE TO THE CONGRESS AND TO THE COTTON GROWERS DAY TO BE HELD AT ALGIERS.

October, 1927.

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I.

The Water Congress which will be followed by the Cotton Growers Day, will be composed of official delegates, representatives of agricultural societies and private individuals.

II.

The members of the Congress will pay an entrance fee of 50 francs each.

III.

This fee gives the right to be present at all the sessions of the Water Congress and of the Cotton Growers Day, and to receive the official report of its labors and discussions.

IV.

Each member will receive an admission card which is strictly personal.

V.

The work of the Congress will be divided into general meetings, sectional meetings, lectures on special subjects, visits to certain areas.

VI.

The Water Congress will consist of nine sections as indicated on the program.

The Cotton Growers Day will consist of eight sections as indicated on the program.

VII.

Reports and papers may be submittedfor each section. Every writer of a report or his substitute will give its substance in a short precis and will put forward his conclusions at the general meeting, but in order to leave ample time for discussion, they will not be read at length. Papers must be left with the Secretary of the Confédération Générale des Agriculteursd'Algérie, before the 15th of July. Reports must be left with the Secretary before the 15th of August so that they may be printed in good time. Papers may be read or stated succintly at the meetings of the sections. The organizing committee reserves the right to print them in whole or in part.

The lectures will not be followed by a discussion.

VIII.Representatives

VIII.

Representatives of the Press will be admitted on presentation of their card.

IX.

The Sections will be composed of a President, a vice president, a secretary for each division.
For the Cotton Growers Day there will be only general meetings.

X.

Speeches will be limited to five minutes with exception of the reader of the paper under discussion.

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WATER CONGRESS AND COTTON GROWERS DAY

October 1927.

P-R-O-G-R-A-M

WATER CONGRESS:

1o Water resources:

a) Surface water:

Establishment by regions of the annual rainfall and its repartition.
Regional studies on the evaporation, infiltration and drainage of rain water
(The Meteorological Services of Algeria and France and the Public Works Department will coopprate)

b) Subterranean water:

Regional studies on geohydrology, subterranean water courses, springs.
Condensation of atmospheric vapors (hydrogenesis)
Geohydrological map — Water deviners.

2o-Means of increasing the resources of water.

Afforestation.
Condensation of atmospheric vapors (artificial springs).
Formation and absorption of condensing clouds with limited hydrometrical tension.
Transformation of hail to rain.
Borings. Artesian wells.
(All these problems which appeared, twenty years ago, completely insolvable are possibly on the point of receiving a practical solution thanks to the progress of aeronautics. The Confederation of Agricultural Syndicates of Oranie is already communicating on this subject with the International Institute of Agriculture of Rome).

3o Water requirements.

Supply for the population.
Supply for domestic animals.
Supply for the crops in winter and in summer.
(The Departments of Agriculture, the Southern Territories and the Interior will cooperate).

4o Scientific

4o. Scientific conservation and utilization of water.

Mountains:- horizontal dikes; small barrages.
Reservoirs and barrages in the valleys.
The appropriate methods of cultivation for retaining the maximum amount of water in the soil and for procuring a minimum loss of water through evaporation.

Irrigation works:

Geological study of the irrigated areas.
Chemical analysis (saltness) of the water.
Quantity of water necessary for each crop.
Loss through evaporation.
Drainage questions (The Engineering Services of the Department of Agriculture will cooperate).

5o- Water hygienics.

Water unfit for consumption.
Irrigation and malaria.

6o- Utilization of water in agriculture.

Methods of irrigation.
Quantity of water necessary to each crop.
Cultivation of the cotton plant on irrigated land.

7o- Utilization of water in industry.

Electrification of country districts.

8o-Appliances for finding and utilizing water.

Pumps and lifting machines.

9o-Legislation dealing with water.

COTTON GROWERS DAY:

I. The present position of the production of cotton in North Africa.

Possibilities of extending the cultivation of the cotton plant:

1. By increasing the extent of the irrigable lands;
2. By cultivation in fields without irrigation.

II.Improvement

II. Improvement of the varieties of the cotton plant.

Selection- Production of seeds of selected varieties - The manner of insuring purity of the plants intended for seed production - Choice of a single variety for each region.

III. Methods of sowing.

a) on irrigated land,
b) on land without irrigation.

Use of tractive seed drills (for lines or hills) Distance apart of the hills. Number of plants to each hill.
The time for sowing. Method of insuring the germination of the seed - Seed disinfection.

IV. PINCHING.

Different ways of pinching. Comparison of results obtained from crops with and without pinching.

V. Layering.

The advantages and disadvantages of layering.

VI. Manuring.

Selection of fertilizers for different kinds of soil - The scattering and turning in of fertilizers.

VII. Protection of the crops against insects and diseases.

Study of the measures undertaken to render this protection effective in Algeria, Tunisia and Morocco. Means of combatting Earias - Neck rot.

VIII. Ginning and sale.

Grading - Creation of uniform types for each district (standardization) - Cotton cooperative societies - Storage of cotton and the warrant system.
(Note: The questions interesting the irrigation of the cotton plant will be studied at the Water Congress, 3rd day).

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